

## ABSTRACT OF THE DISCLOSURE

In accordance with the invention, a presenter of credentials presents to a recipient of credentials one or more chains of group credentials to prove entity membership or non-membership in a nested group in a computer network. The ability to present a chain of credentials is particularly important when a client is attempting the prove membership or non-membership in a nested group and one or more of the group servers in the family tree are off-line. A chain of group credentials includes two or more proofs of group membership and/or proofs of group non-membership. Furthermore, the proofs of group membership may include one or more group membership certificates and/or one or more group membership lists; and proofs of group non-membership may include one or more group non-membership certificates and/or one or more group membership lists.